## (19) World Intellectual Property **Organization**

International Bureau





(43) International Publication Date 23 June 2005 (23.06.2005)

PCT

## (10) International Publication Number WO 2005/056907 A1

(51) International Patent Classification<sup>7</sup>: D06F 39/08

(21) International Application Number:

PCT/KR2004/000817

(22) International Filing Date: 8 April 2004 (08.04.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 10-2003-0089132

> 9 December 2003 (09.12.2003) KR

- (71) Applicant (for all designated States except US): SAM-SUNG ELECTRONICS CO., LTD. [KR/KR]; 416, Maetan-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do 442-742 (KR).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): LEE, Young Su [KR/KR]; #101-1203, Kolon APT., 890, Goowoon-Dong, Kwonseon-Gu, Suwon-Si, Gyeonggi-Do 441-340 (KR).
- Agent: SEO, Bong Seok; 9th Floor, Seolim Bldg., 649-10 Youksam-dong, Gangnam-gu, Seoul 135-080 (KR).

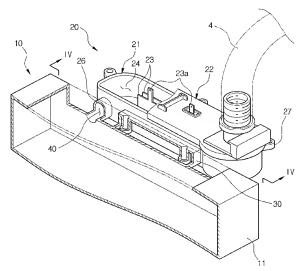
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## **Published:**

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COLLOIDAL SILVER MAKER AND WASHING MACHINE HAVING THE SAME



(57) Abstract: A washing machine with a colloidal silver maker is constructed so that there is no water in a silver ion casing when a water supply operation is stopped, thus preventing silver plates from corroding, and preventing impurities from being adhered to the silver plates. The colloidal silver maker includes a silver ion casing, a lid, and a pair of silver plates. An outlet hole is provided on a surface of the silver ion casing to extend from a lower end toward an upper end of the silver ion casing. In this case, the outlet hole has a shape of an ellipse, and is provided so that a height thereof is greater than a width thereof. Further, a height of the silver ion casing and the height of the outlet hole are in a ratio of about 3:2. Such an outlet hole prevents wash water from remaining in the silver ion casing after the water supply operation is stopped, and allows silver ions of a proper concentration to be added to the wash water.

